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EXAMINER	
JACOB, MARY C	

ART UNIT	PAPER NUMBER
2123	

DATE MAILED: 11/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/637,206	OROFINO, DONALD P.	
	Examiner	Art Unit	
	Mary C. Jacob	2123	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-93* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-93* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 October 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-93 have been presented for examination.

Drawings

2. The objections to the drawings are hereby withdrawn in light of the amendments to the drawings filed 10/5/06.

Specification

3. The objections to the specification are hereby withdrawn in light of the amendments to the specification filed 10/5/06.

Claim Objections

4. The objections to the claims are hereby withdrawn in light of the amendments to the specification, filed 10/5/06.

Claim Rejections - 35 USC § 112

5. The rejections under 35 USC 112, second paragraph, are hereby withdrawn in light of the amendments to the claims, filed 10/5/06.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 12, 15-18, 32-35, 49-53, 64, 67-72, 75, 76, 90-93 are rejected under 35 U.S.C. 102(b) as being anticipated by Bishop ("Modern Control Systems Analysis and Design Using Matlab and Simulink", Addison-Wesley Logman, Inc., pages 1, 7-16, 95-102, 1997).

8. As to Claims 1, 53, 72, 75 and 76, Bishop teaches: in a simulation environment, a method for controlling collection of data generated by a dynamic system model, comprising: providing the dynamic system model configured to generate data (Figure 5.4; Figure 5.12); providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model (Figure 5.12, yout, Auto-Scale Graph, To Workspace (s)); activating the dynamic system model, thereby generating data (page 98, lines 7-11, Figure 5.10; Figure 5.11); and synchronizing data collection by the two or more data collection modules using the control system (page 98, lines 7-11; Figure 5.11; section 5.4.1, paragraph 2, saving parameters to the workspace).

9. As to Claims 12, 64, and 87 Bishop teaches: providing a time tracking function that directs a graphical display indication of a time history of data collected (Figure 1.13, Figure 1.15).

10. As to Claims 15, 32, 49, 67 and 90 Bishop teaches: the simulation environment comprises at least one of a graphical, textual, data flow, time based, and event based environments (Page 1, 2nd paragraph).

11. As to Claims 16, 33, 50, 68, 70 and 91, Bishop teaches: the two or more data modules are virtually formed using at least one of MATLAB, JAVA, C++, object-oriented code, and computer code, wherein the dynamic system is at least one of a virtual system and a physical system (page 1, paragraph 2; Section 1.3, paragraphs 1, 2 and 3; Figures 1.9-1.12 and descriptions).

12. As to Claims 17, 34, 51, 69 and 92 Bishop teaches: wherein the two or more data modules provide displays in the form of at least one of textual, graphical, multi-dimensional, oscilloscope, and spectrum analyzer (Figure 1.9; page 10, paragraph 1; Figure 5.11; section 5.4.1, paragraph 2, saving parameters to the workspace).

13. As to Claims 18, 35, 52, 71 and 93, Bishop teaches: wherein the control system is a separate system from the dynamic system (Figure 5.12, wherein the data modules are separate from the dynamic model contained in the feedback loop).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. Claims 2-4, 6, 7, 13, 19-21, 23, 24, 29, 30, 54-56, 58, 59, 65, 73, 77-79, 81, 82 and 88 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop as applied to claims 1, 53 and 76 above, in view of Guiberson et al (US Patent 6,088,029).

16. As to Claims 2-4, 6, 7, 13, 19-21, 23, 24, 30, 54-56, 58, 59, 65, 73, 77-79, 81, 82 and 88, Bishop teaches: in a simulation environment, a method for controlling collection of data generated by a dynamic system model, comprising: providing the dynamic system model configured to generate data (Figure 5.4; Figure 5.12); providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model (Figure 5.12, yout, Auto-Scale Graph, To Workspace (s)); activating the dynamic system model, thereby generating data (page 98, lines 7-11, Figure 5.10; Figure 5.11); synchronizing data collection by the two or more data collection modules using the control system (page 98, lines 7-11; Figure 5.11; section 5.4.1, paragraph 2, saving parameters to the workspace); providing a time tracking function that directs a graphical display indication of a time history of data collected (Figure 1.13, Figure 1.15). Bishop further teaches stop, restart and pause parameters in a simulation menu (Figure 1.17) and the dynamic updating of a graphical display during simulation (page 12, lines 13-14).

17. Bishop does not expressly teach: executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected; a user reviewing the display of data collected while data continues to be collected without updating the display; a user manipulating the display of data collected while data

continues to be collected; providing an interface having a communication port for communicating with each of the two or more data modules; directing a review of data collected by the two or more data collection instruments by utilizing a review function; wherein synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

18. Guiberson et al teaches an improved dialog box interface for measurement instruments that allows both the display of real-time data and the display of a control window, the control window including one or more user-selectable options and at least a portion of the real time data, therefore not covering up data by the control window which typically cover up a large portion of the measurement system's display device, preventing the user from seeing his or her data in the underlying application (column 1, lines 23-55). Guiberson et al further teaches executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (column 4, lines 58-60); a user reviewing the display of data collected while data continues to be collected without updating the display (column 4, lines 63-65; column 5, lines 46-58); a user manipulating the display of data collected while data continues to be collected (column 5, lines 1-8); providing an interface having a communication port for communicating with each of the two or more data modules (Figure 1, element 121; Figure 5, element 516, 508; column 3, lines 11-15); directing a review of data collected

by the two or more data collection instruments by utilizing a review function (column 5, lines 15-37); wherein synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function (column 4, lines 54-57; column 5, line 59-column 6, line 16).

19. Bishop and Guiberson et al are analogous art since they are both directed to data acquisition and the display of real-time data.

20. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the synchronizing of data collection, dynamic updating of a graphical display and the use of the stop, pause and restart parameters as taught by Bishop to include a snapshot function, the review of display while data continues to be collected without updating the display, manipulating the display of data while data continues to be collected, providing an interface having a communications port, and the utilization of a broadcast function as taught by Guiberson et al since Guiberson et al teaches an improved dialog box interface for measurement instruments that allows both the display of real-time data and the display of a control window, the control window including one or more user-selectable options and at least a portion of the real time data, therefore not covering up data by the control window which typically cover up a large portion of the measurement system's display device, preventing the user from seeing his or her data in the underlying application (column 1, lines 23-55).

21. Claims 5, 8-10, 14, 36, 42-44, 46, 48, 57, 60-62, 66, 74, 80, 83-85, and 89 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop as applied to claims 1, 53 and 76 above, in view of Mathworks ("Using Simulink", Version 2.2, January 1998, pages 4-1-4-20, 7-2, 7-8-7-14, 9-118-9-125, 9-146-9-152).

22. As to Claims 5, 8-10, 14, 36, 42-44, 46, 48, 57, 60-62, 66, 74, 80, 83-85, and 89, Bishop teaches: a method for controlling collection of data generated by a dynamic system model, in a simulation environment through the use of the simulation program, SIMULINK (page 1), providing the dynamic system model configured to generate data (Figure 5.4; Figure 5.12); providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model (Figure 5.12, yout, Auto-Scale Graph, To Workspace (s)); activating the dynamic system model, thereby generating data (page 98, lines 7-11, Figure 5.10; Figure 5.11); and synchronizing data collection by the two or more data collection modules using the control system (page 98, lines 7-11; Figure 5.11; section 5.4.1, paragraph 2, saving parameters to the workspace); providing a time tracking function that directs a graphical display indication of a time history of data collected (Figure 1.13, Figure 1.15).

23. Bishop does not expressly teach executing a suspend function to pause collection of data while the dynamic system continues to operate; a user defining data history parameters utilizing a data history function; the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats; directing a

buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function; and utilizing an event based trigger to initiate a data module action.

24. Mathworks teaches Version 2.2 of SIMULINK, including the following functionalities: comprising executing a suspend function to pause collection of data while the dynamic system continues to operate (page 4-5, last 2 paragraphs); a user defining data history parameters utilizing a data history function (page 9-124); the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats (page 9-124); directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function (9-146, 9-148; page 9-151, Description, paragraph 53, page 9-152); and utilizing an event based trigger to initiate a data module action (pages 7-2, 7-8, 7-9).

25. Bishop and Mathworks are analogous art since they are both directed to SIMULINK software.

26. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SIMULINK simulations as taught in Bishop to include executing a suspend function to pause collection of data while the dynamic system continues to operate; a user defining data history parameters utilizing a data history function; the data history parameters comprise at least one of amount of data history,

amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats; directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function; and utilizing an event based trigger to initiate a data module action as taught by Mathworks since Mathworks teaches these functions are available in the SIMULINK environment that is used in the method taught by Bishop.

27. Claims 11, 63 and 86 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop as applied to claims 1, 53 and 76 above, in view of Chen et al (US Patent 5,684,945).

28. As to Claims 11, 63 and 86, Bishop teaches in a simulation environment, a method for controlling collection of data generated by a dynamic system model, comprising: providing the dynamic system model configured to generate data (Figure 5.4; Figure 5.12); providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model (Figure 5.12, yout, Auto-Scale Graph, To Workspace (s)); activating the dynamic system model, thereby generating data (page 98, lines 7-11, Figure 5.10; Figure 5.11); synchronizing data collection by the two or more data collection modules using the control system (page 98, lines 7-11; Figure 5.11; section 5.4.1, paragraph 2, saving parameters to the workspace).

29. Bishop does not expressly teach a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

30. Chen et al teaches a highly flexible analysis tool for a data processing system and further, a tool for monitoring, capturing, saving, retrieval and analysis of data processing system operations (column 2, lines 64-65; column 3, lines 103) wherein a user can utilize a scroll function to scroll through previously collected data while dynamic system is operating (column 23, lines 31-48).

31. Bishop and Chen et al are analogous art since they are both directed to data acquisition and the display and manipulation of real-time data.

32. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of controlling collection of data generated by a dynamic system model as taught in Bishop to include a scroll function allowing a user to scroll through previously collected data while the dynamic system is still operating as taught in Chen et al since Chen et al teaches a highly flexible analysis tool for a data processing system and further, a tool for monitoring, capturing, saving, retrieval and analysis of data processing system operations (column 2, lines 64-65; column 3, lines 103).

33. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop and Guiberson et al as applied to claim 19 above, and further in view of Chen et al.

34. As to Claim 28, Bishop and Guiberson et al teach: a method for controlling collection of data generated by a dynamic system model, comprising: providing the

dynamic system model configured to generate data providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model; activating the dynamic system model, thereby generating data; synchronizing data collection by the two or more data collection modules using the control system and executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (See above paragraphs 21-26).

35. Bishop and Guiberson et al do not expressly teach: a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

36. Chen et al teaches a highly flexible analysis tool for a data processing system and further, a tool for monitoring, capturing, saving, retrieval and analysis of data processing system operations (column 2, lines 64-65; column 3, lines 103) wherein a user can utilize a scroll function to scroll through previously collected data while dynamic system is operating (column 23, lines 31-48).

37. Bishop and Guiberson et al and Chen et al are analogous art since they are both directed to data acquisition and the display and manipulation of real-time data.

38. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of controlling collection of data generated by a dynamic system model as taught in Bishop and Guiberson et al to include a scroll function allowing a user to scroll through previously collected data while the dynamic

system is still operating as taught in Chen et al since Chen et al teaches a highly flexible analysis tool for a data processing system and further, a tool for monitoring, capturing, saving, retrieval and analysis of data processing system operations (column 2, lines 64-65; column 3, lines 103).

39. Claims 22, 25-27 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop and Guiberson et al as applied to claim 19 above, and further in view of Mathworks.

40. As to Claim 19, Bishop and Guiberson et al teach: a method for controlling collection of data generated by a dynamic system model, in a simulation environment through the use of the simulation program, SIMULINK (Bishop: page 1) comprising: providing the dynamic system model configured to generate data providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model; activating the dynamic system model, thereby generating data; synchronizing data collection by the two or more data collection modules using the control system and executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (See above paragraphs 21-26).

41. Bishop and Guiberson et al do not expressly teach: executing a suspend function to pause collection of data while the dynamic system continues to operate; a user defining data history parameters utilizing a data history function; the data history

parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats; directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function; and utilizing an event based trigger to initiate a data module action.

42. Mathworks teaches Version 2.2 of SIMULINK, including the following functionalities: comprising executing a suspend function to pause collection of data while the dynamic system continues to operate (page 4-5, last 2 paragraphs); a user defining data history parameters utilizing a data history function (page 9-124); the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats (page 9-124); directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function (9-146, 9-148; page 9-151, Description, paragraph 53, page 9-152); and utilizing an event based trigger to initiate a data module action (pages 7-2, 7-8, 7-9).

43. Bishop and Guiberson et al and Mathworks are analogous art since they are both directed to SIMULINK software.

44. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the SIMULINK simulations as taught in Bishop and Guiberson et al to include executing a suspend function to pause collection of data

while the dynamic system continues to operate; a user defining data history parameters utilizing a data history function; the data history parameters comprise at least one of amount of data history, amount of memory allocation for storing data history, types of data collected, signal attributes, and data formats; directing a buffering mode to be utilized during data collection from one of a circular buffering mode, a finite buffering mode, and a buffer extension mode by executing a data buffering mode function; and utilizing an event based trigger to initiate a data module action as taught by Mathworks since Mathworks teaches these functions are available in the SIMULINK environment that is used in the method taught by Bishop and Guiberson et al.

45. Claims 37-41, and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop and Mathworks as applied to claim 36 above, and further in view of Guiberson et al.

46. As to Claims 37-41, and 47, Bishop and Mathworks teach: a method for controlling collection of data generated by a dynamic system model, in a simulation environment through the use of the simulation program, SIMULINK (page 1), providing the dynamic system model configured to generate data; providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model; activating the dynamic system model, thereby generating data; and synchronizing data collection by the two or more data collection modules using the control system; executing a suspend function to pause collection of data while the dynamic system continues to operate (See above

paragraphs 25-30). Bishop and Mathworks further teaches stop, restart and pause parameters in a simulation menu (Bishop: Figure 1.17) and the dynamic updating of a graphical display during simulation (Bishop: page 12, lines 13-14).

47. Bishop and Mathworks do not expressly teach executing a snapshot function to direct at least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected; a user reviewing the display of data collected while data continues to be collected without updating the display; a user manipulating the display of data collected while data continues to be collected; providing an interface having a communication port for communicating with each of the two or more data modules; directing a review of data collected by the two or more data collection instruments by utilizing a review function; wherein synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function.

48. Guiberson et al teaches an improved dialog box interface for measurement instruments that allows both the display of real-time data and the display of a control window, the control window including one or more user-selectable options and at least a portion of the real time data, therefore not covering up data by the control window which typically cover up a large portion of the measurement system's display device, preventing the user from seeing his or her data in the underlying application (column 1, lines 23-55). Guiberson et al further teaches executing a snapshot function to direct at

least one of the two or more data modules to freeze a display of data collected while the dynamic system model continues to execute and the data continues to be collected (column 4, lines 58-60); a user reviewing the display of data collected while data continues to be collected without updating the display (column 4, lines 63-65; column 5, lines 46-58); a user manipulating the display of data collected while data continues to be collected (column 5, lines 1-8); providing an interface having a communication port for communicating with each of the two or more data modules (Figure 1, element 121; Figure 5, element 516, 508; column 3, lines 11-15); directing a review of data collected by the two or more data collection instruments by utilizing a review function (column 5, lines 15-37); wherein synchronizing the two or more data modules comprises conveying to the selected of the two or more data modules a direction to synchronize execution of one or more functions at the selected of the two or more data modules by utilizing a broadcasting function (column 4, lines 54-57; column 5, line 59-column 6, line 16).

49. Bishop and Mathworks and Guiberson et al are analogous art since they are both directed to data acquisition and the display of real-time data.

50. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the synchronizing of data collection, dynamic updating of a graphical display and the use of the stop, pause and restart parameters as taught by Bishop and Mathworks to include a snapshot function, the review of display while data continues to be collected without updating the display, manipulating the display of data while data continues to be collected, providing an interface having a communications port, and the utilization of a broadcast function as taught by Guiberson et al since

Guiberson et al teaches an improved dialog box interface for measurement instruments that allows both the display of real-time data and the display of a control window, the control window including one or more user-selectable options and at least a portion of the real time data, therefore not covering up data by the control window which typically cover up a large portion of the measurement system's display device, preventing the user from seeing his or her data in the underlying application (column 1, lines 23-55).

51. Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bishop and Mathworks as applied to claim 36 above, and further in view of Chen et al.

52. As to Claim 45, Bishop and Mathworks teach: a method for controlling collection of data generated by a dynamic system model, in a simulation environment through the use of the simulation program, SIMULINK (page 1), providing the dynamic system model configured to generate data; providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model; activating the dynamic system model, thereby generating data; and synchronizing data collection by the two or more data collection modules using the control system; executing a suspend function to pause collection of data while the dynamic system continues to operate (See above paragraphs 25-30). Bishop and Mathworks further teaches stop, restart and pause parameters in a simulation menu (Bishop: Figure 1.17) and the dynamic updating of a graphical display during simulation (Bishop: page 12, lines 13-14).

53. Bishop and Mathworks do not expressly teach a user utilizing a scroll function to scroll through previously collected data while the dynamic system model is operating.

54. Chen et al teaches a highly flexible analysis tool for a data processing system and further, a tool for monitoring, capturing, saving, retrieval and analysis of data processing system operations (column 2, lines 64-65; column 3, lines 103) wherein a user can utilize a scroll function to scroll through previously collected data while dynamic system is operating (column 23, lines 31-48).

55. Bishop and Mathworks et al and Chen et al are analogous art since they are both directed to data acquisition and the display and manipulation of real-time data.

56. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of controlling collection of data generated by a dynamic system model as taught in Bishop and Mathworks et al to include a scroll function allowing a user to scroll through previously collected data while the dynamic system is still operating as taught in Chen et al since Chen et al teaches a highly flexible analysis tool for a data processing system and further, a tool for monitoring, capturing, saving, retrieval and analysis of data processing system operations (column 2, lines 64-65; column 3, lines 103).

Response to Arguments

57. Applicant's arguments filed 10/5/06 have been fully considered but they are not persuasive.

58. As to the following limitation in the claims: "providing a control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model", Applicant argues that the "yout" and "tout" blocks in Figure 5.12 of the Bishop reference are tasked with sending information out of the dynamic system model to a designated location. Applicant further states, "According to one embodiment of the present invention, such mechanisms may be used to send that data to the "control system having two or more data modules", described in the claims, but in no way to they anticipate or render obvious the "control system having two or more data modules itself". Applicant further states, "The control system having two or more data modules, the two or more data modules being communicatively coupled to receive data from the dynamic system model" receives the data, which is patently different from sending the data from the dynamic system model".

As to the above argument, in reference to Figure 5.12 of Bishop, it was concluded that the figure, as a whole, "provides" a control system "in a simulation environment" as stated in the claims wherein it was interpreted that the provision of a control system "in a simulation environment" is encompassed by a model for a control system. This control system contains the data modules "yout" and "tout" that are "communicatively coupled" to receive data from a dynamic system model. It was interpreted from the figure that there are more than one dynamic system models shown in the figure, such as the model for the aileron actuator and the model representing the aircraft dynamics, and that the data modules would receive data, in this case, from the output of the aircraft dynamics model. It is further noted that the "yout" and "tout" data

modules must first receive the data from the dynamic system model in order to output it to the workspace.

59. Applicant argues, "Bishop generally, provides no description of "synchronizing data collection by the two or more data collection modules using the control system".

As to the above argument, the simulation of the control system is performed and while the simulation is being run, data from the dynamic system model, the aircraft dynamics model, is sent to the data modules "tout" and "yout". It is noted that the data is collected by the data modules at the same time while the simulation is operating since at every time stamp of "tout", a reading of a "yout" data value is taken, therefore, the data collection of the two data collection modules is synchronized at every time stamp. The data modules of the control system receive the information from the dynamic system model, therefore, the data collection is synchronized using the control system.

60. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, in reference to the combination of Bishop with Guiberson et al, it is noted that the recited motivation to combine the references, being that "Guiberson et al teaches an improved dialog box interface for measurement instruments that allows both the display of real-time data and

the display of a control window, the control window including one or more user-selectable options and at least a portion of the real-time data" will allow the user to manipulate the data with the control window on one side of the screen and see the results of the manipulation displayed at the same time, without requiring the user to switch back and forth between the control window and the display of the real-time data to see the results of their data manipulation.

Conclusion

61. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

62. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary C. Jacob whose telephone number is 571-272-6249. The examiner can normally be reached on M-F 7AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Examiner
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11/22/06

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